1

FIG. 1

FIRST PRINCIPLE OF PRESENT INVENTION
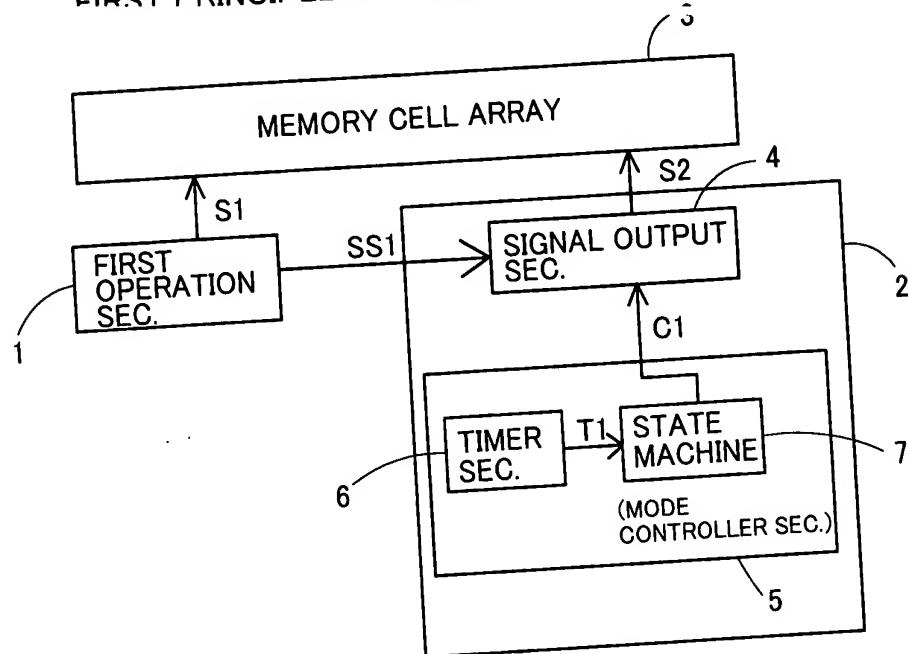

FIG. 2

SECOND PRINCIPLE OF PRESENT INVENTION

Title CONTROL METHOD OF
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

2
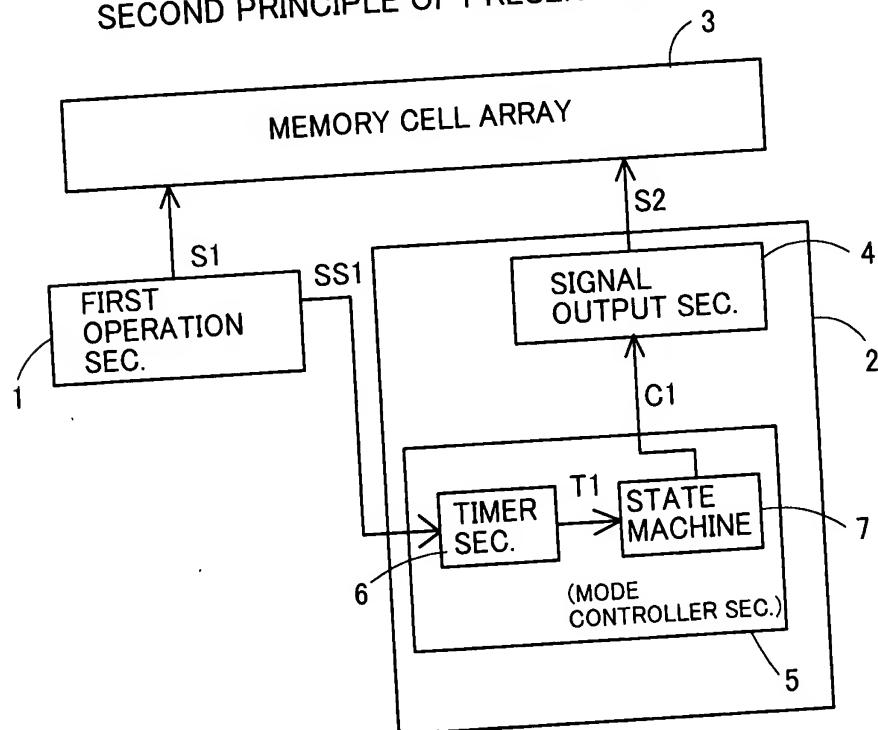
FIG. 3

THIRD PRINCIPLE OF PRESENT INVENTION

Title CONTROL METHOD O
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

3
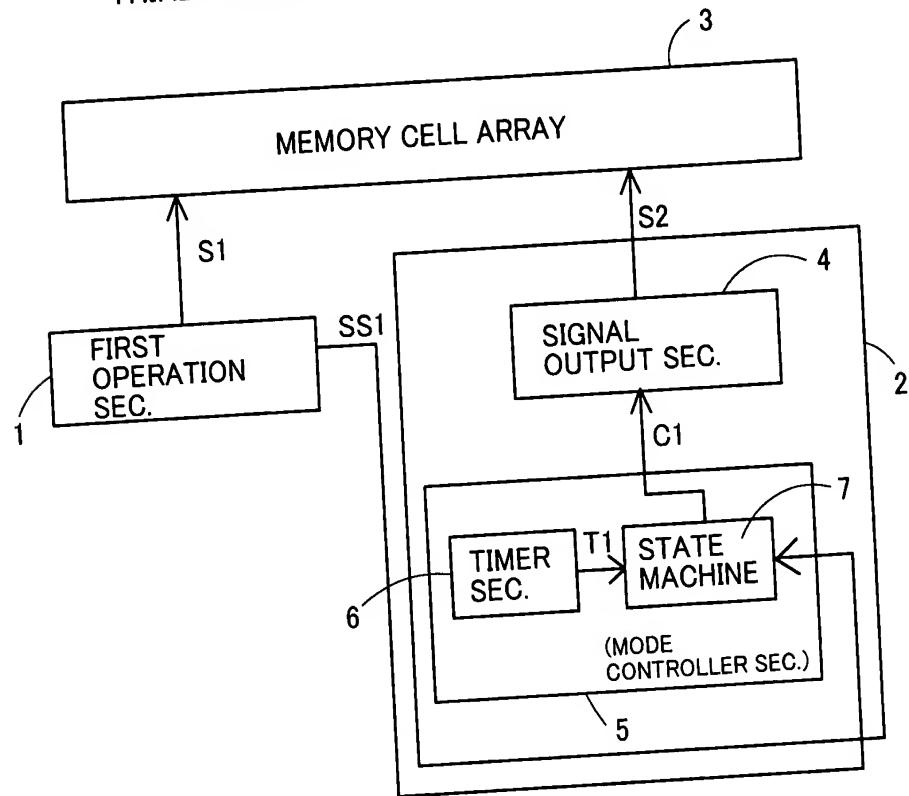
FIG. 4 CIRCUIT BLOCK DIAGRAM OF SEMICONDUCTOR MEMORY DIRECTED TO FIRST EMBODIMENT
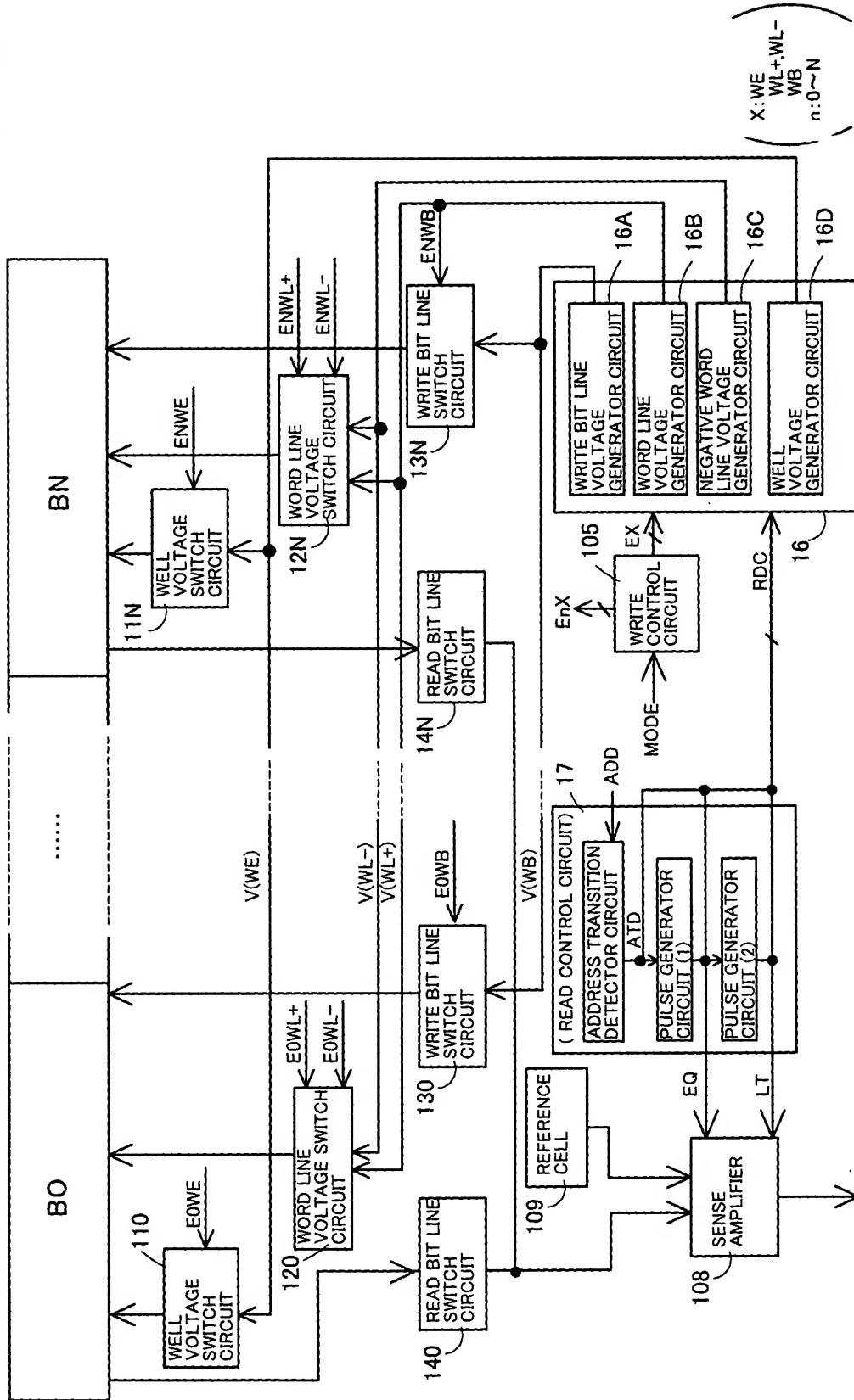
4

FIG. 5

CIRCUIT DIAGRAM OF FIRST SPECIFIC EXAMPLE DIRECTED TO FIRST
EMBODIMENT

Title CONTROL METHOD OF
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

5
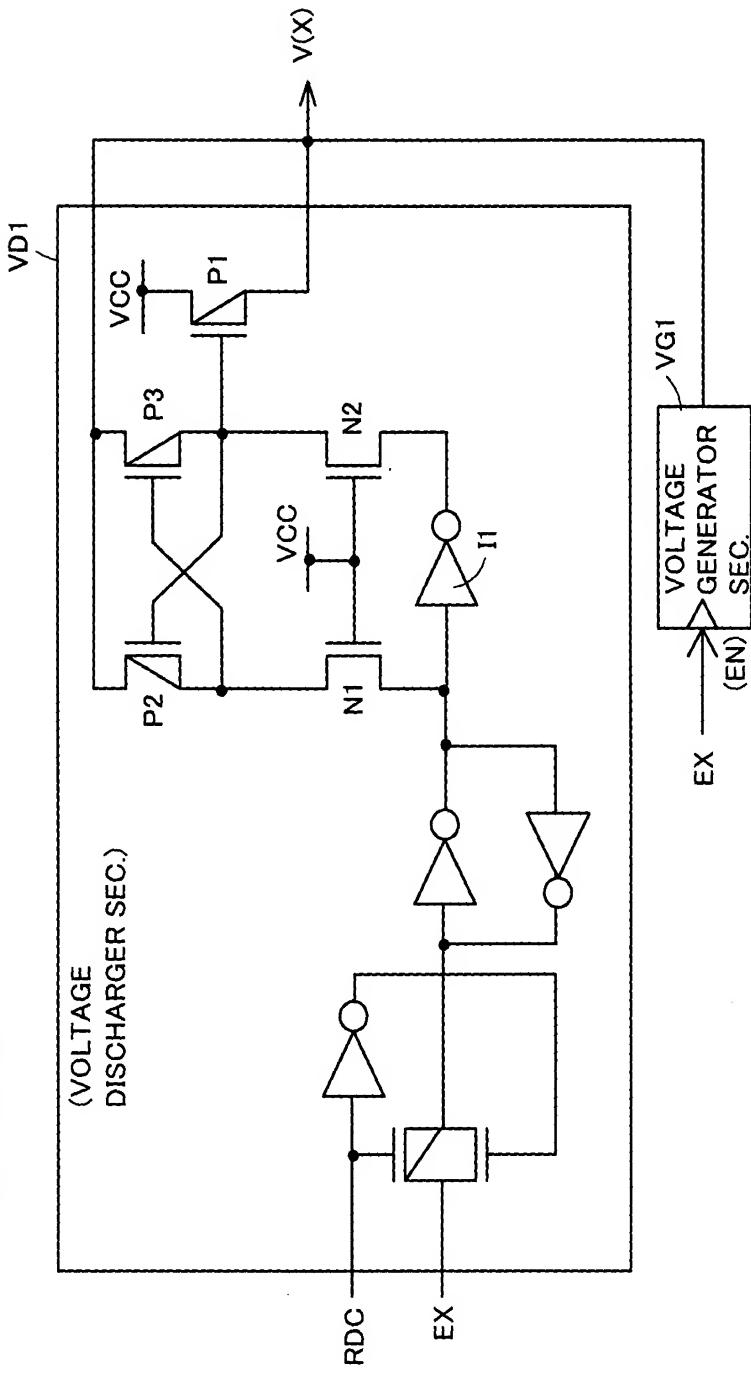
FIG. 6

OPERATIONAL WAVEFORM OF FIRST SPECIFIC EXAMPLE
DIRECTED TO FIRST EMBODIMENT

6

FIG. 7

CIRCUIT DIAGRAM OF SECOND SPECIFIC EXAMPLE DIRECTED TO FIRST EMBODIMENT

Title CONTROL METHOD OF
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066
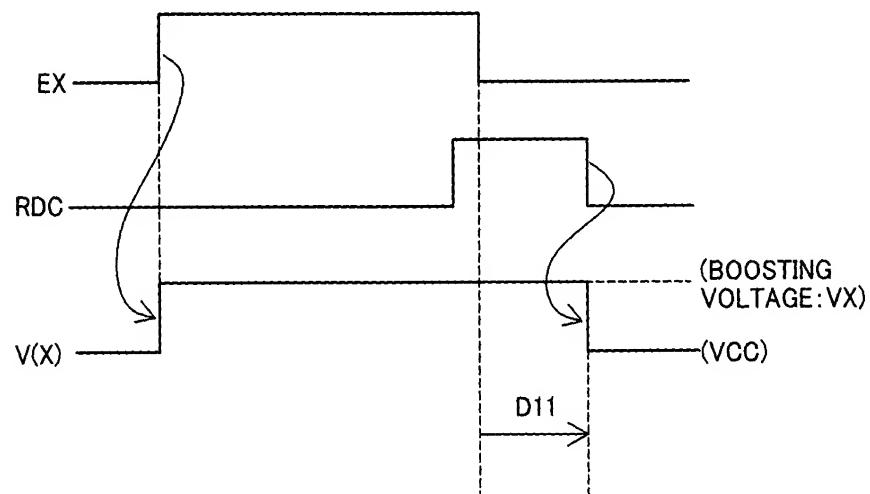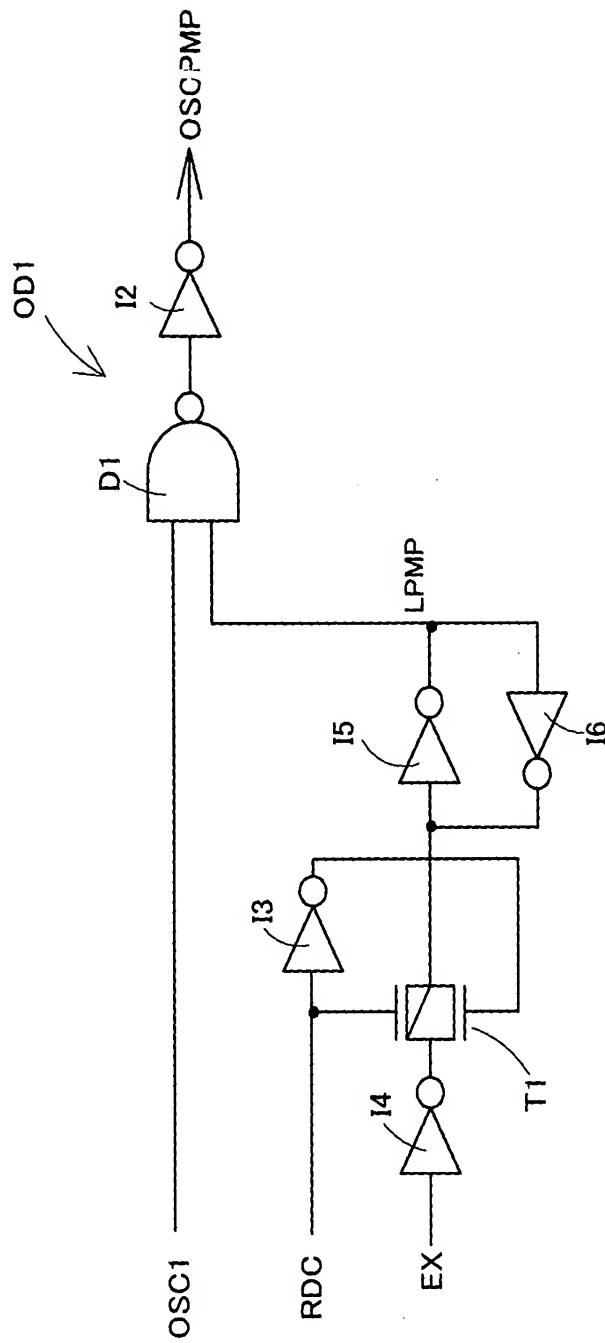
7

FIG. 8

OPERATIONAL WAVEFORM OF SECOND SPECIFIC
EXAMPLE DIRECTED TO FIRST EMBODIMENT

Title CONTROL METHOD OF
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

8
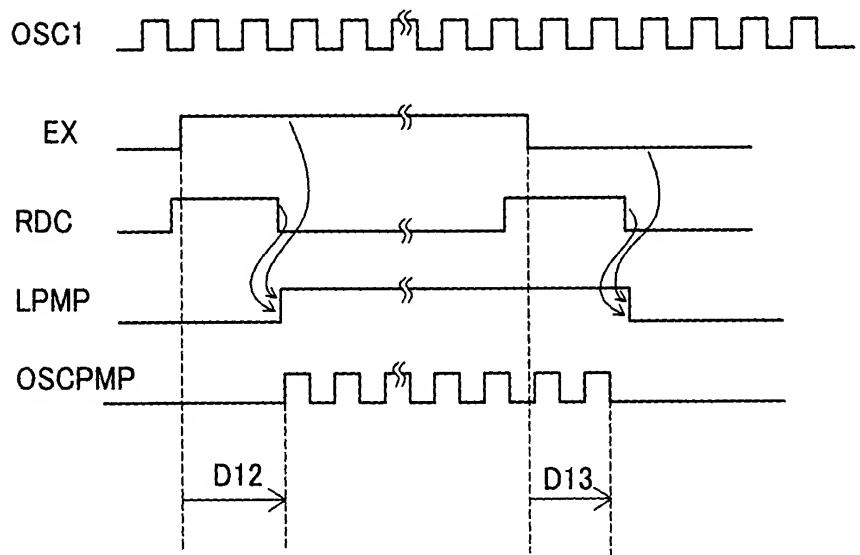
FIG. 9 CIRCUIT BLOCK DIAGRAM OF SEMICONDUCTOR MEMORY DIRECTED TO SECOND EMBODIMENT

9
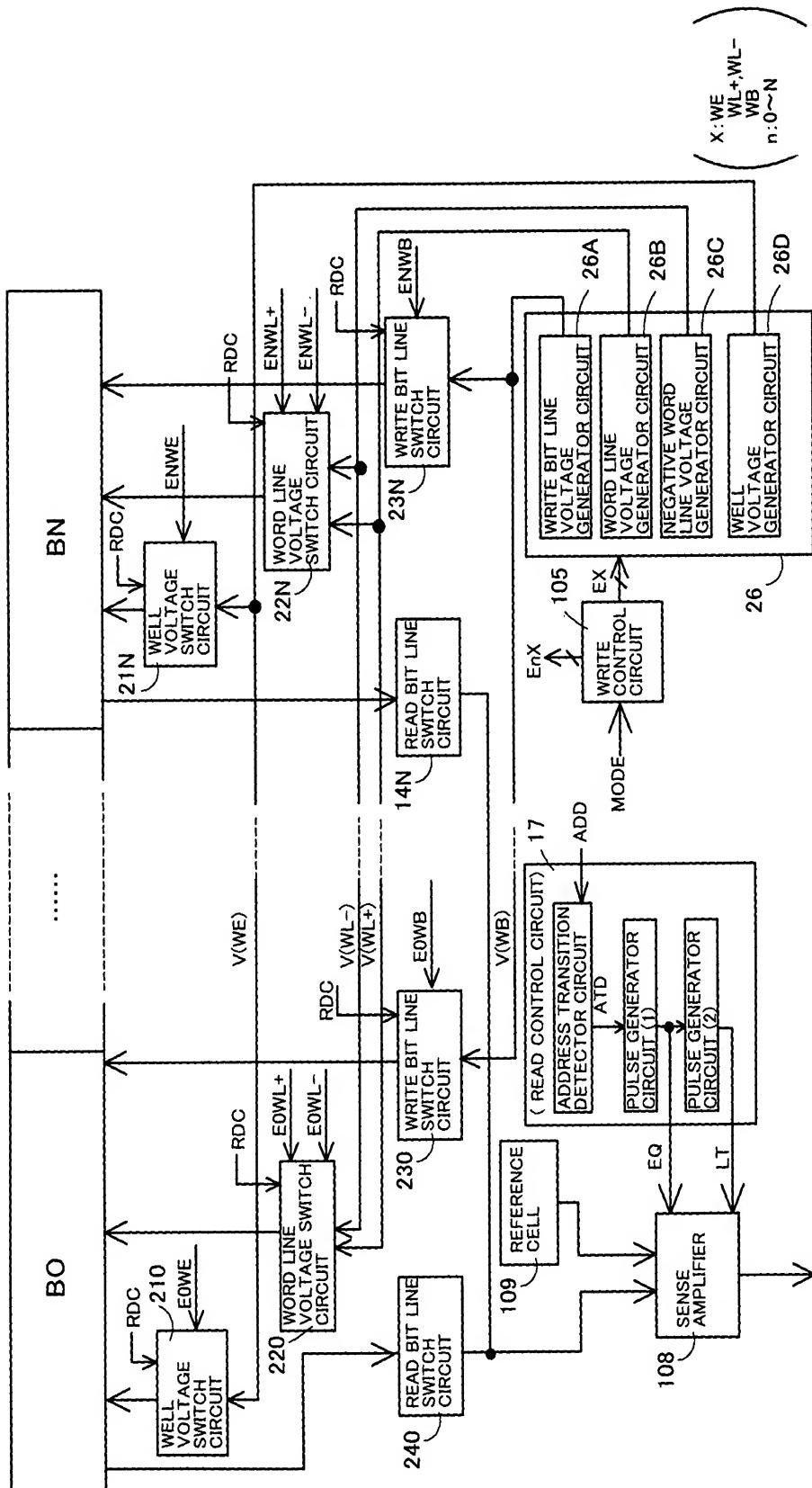
FIG. 10

CIRCUIT DIAGRAM OF SPECIFIC EXAMPLE DIRECTED TO SECOND EMBODIMENT
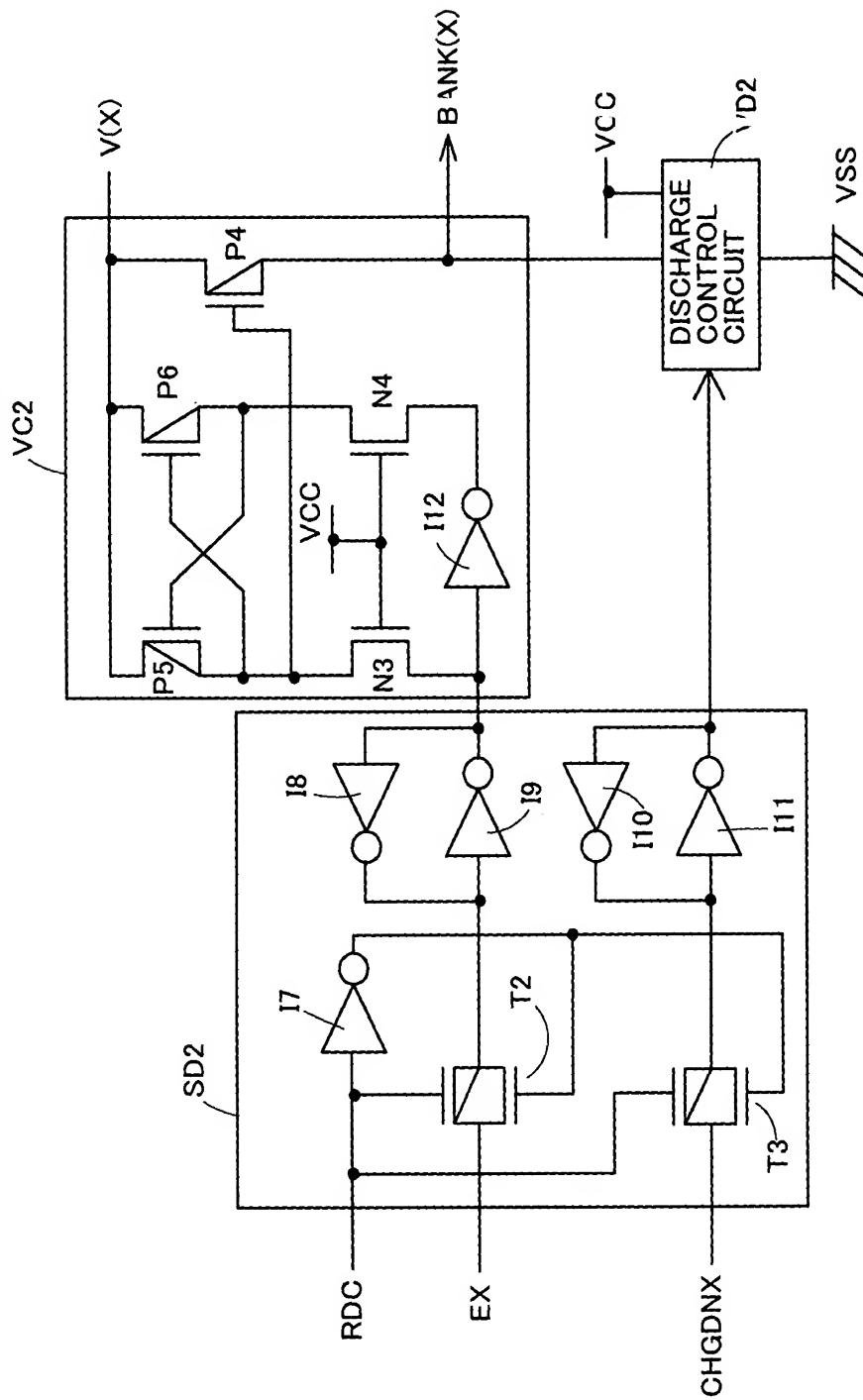
FIG. 11

OPERATIONAL WAVEFORM OF SPECIFIC EXAMPLE
DIRECTED TO SECOND EMBODIMENT
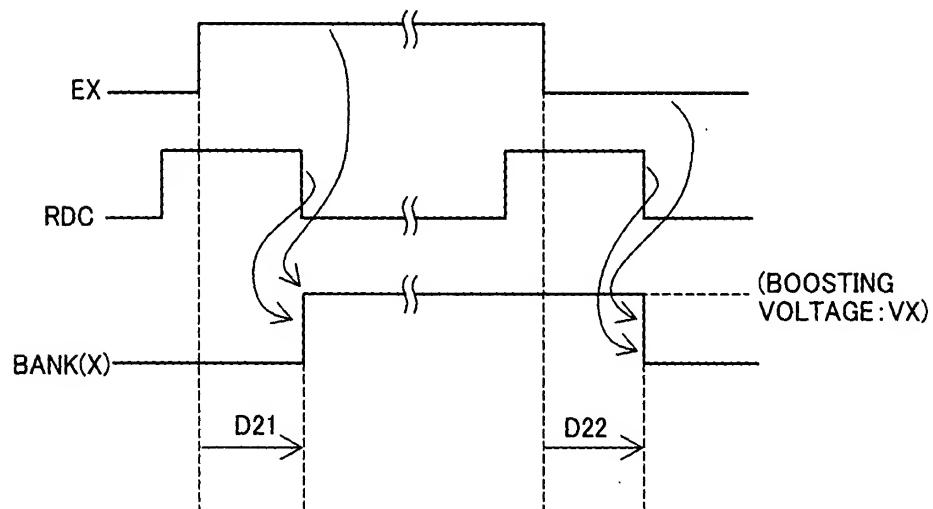
FIG. 12

CIRCUIT BLOCK DIAGRAM OF SEMICONDUCTOR MEMORY
DIRECTED TO THIRD EMBODIMENT

12
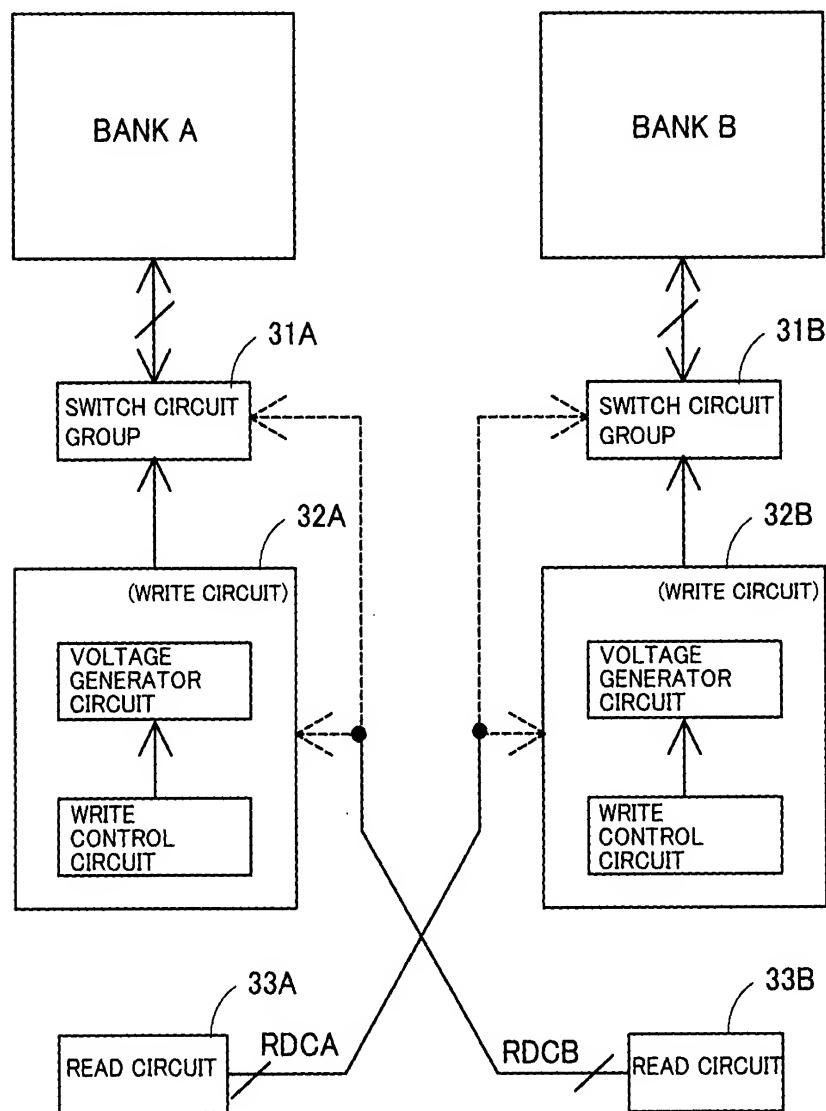
FIG. 13

MODE CONTROL SECTION IN SEMICONDUCTOR MEMORY DIRECTED TO FOURTH EMBODIMENT
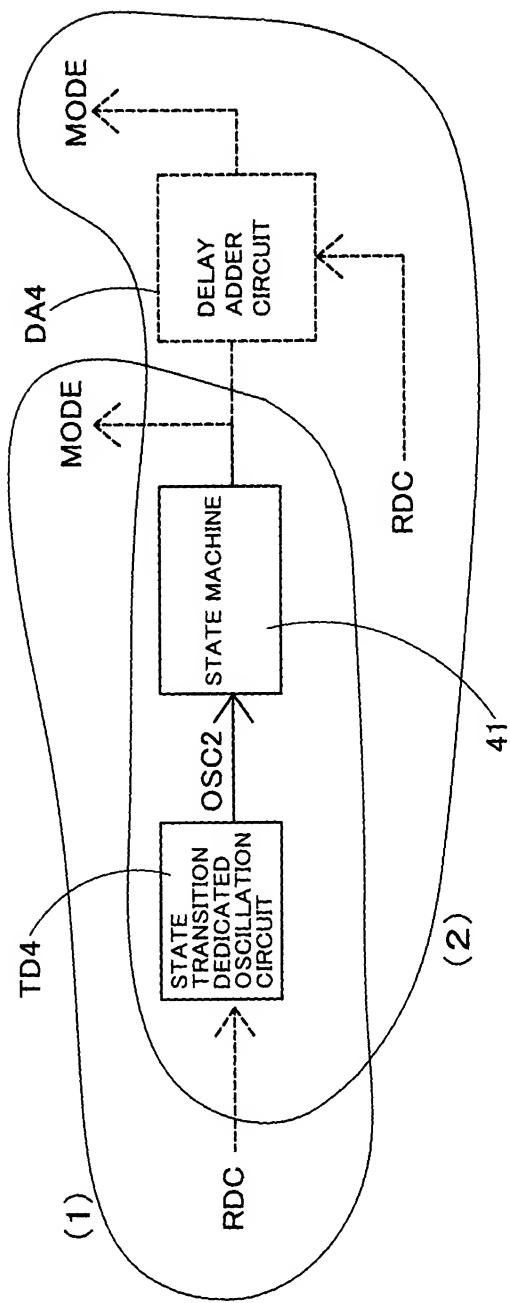
Title CONTROL METHOD OF
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

13

FIG. 14

CIRCUIT DIAGRAM OF FIRST SPECIFIC EXAMPLE DIRECTED TO FOURTH EMBODIMENT
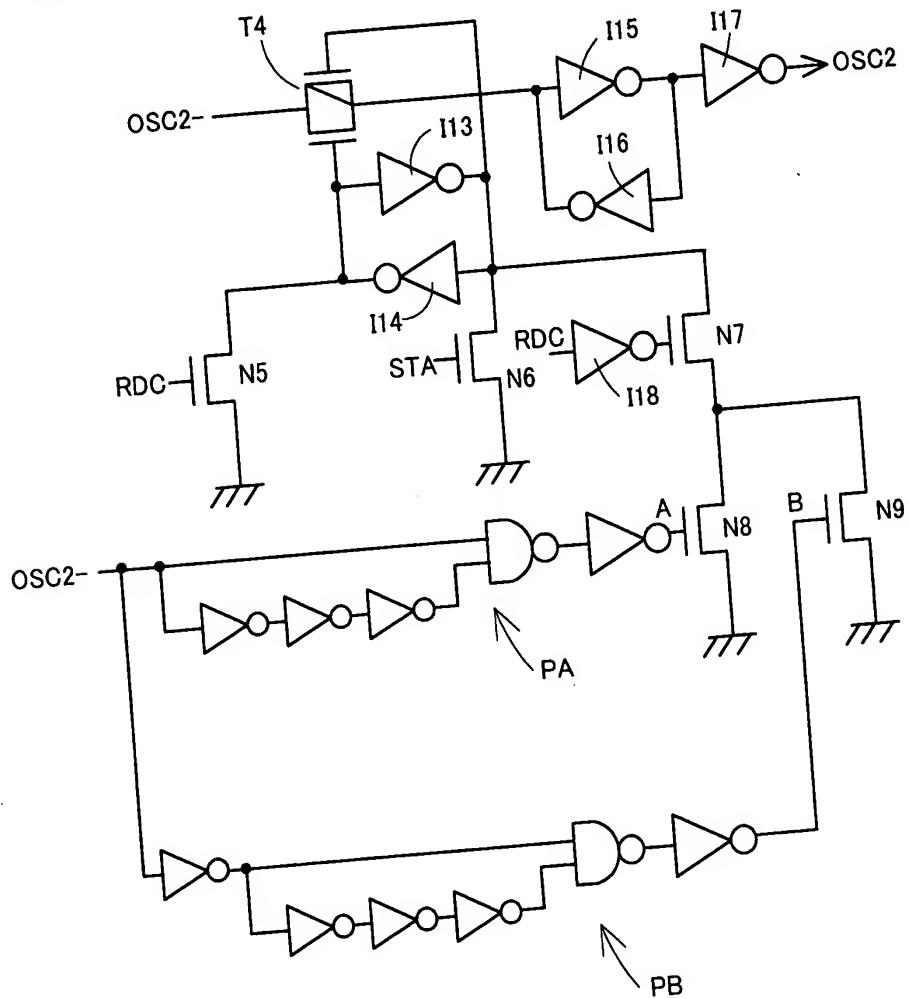
Title CONTROL METHO J U-
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

14

FIG. 15

OPERATIONAL WAVEFORM OF FIRST SPECIFIC EXAMPLE
DIRECTED TO FOURTH EMBODIMENT

Title CONTROL METHOD OF
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

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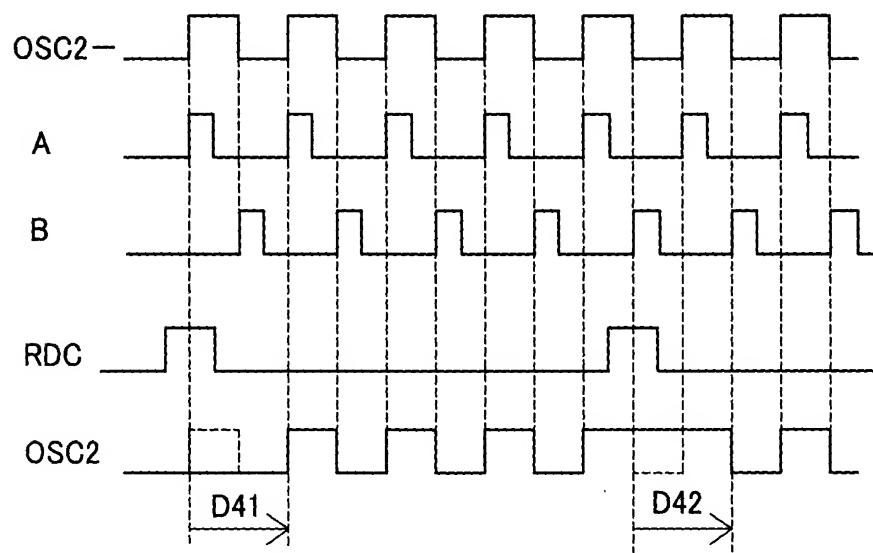
FIG. 16

CIRCUIT BLOCK DIAGRAM OF SECOND SPECIFIC EXAMPLE
DIRECTED TO FOURTH EMBODIMENT
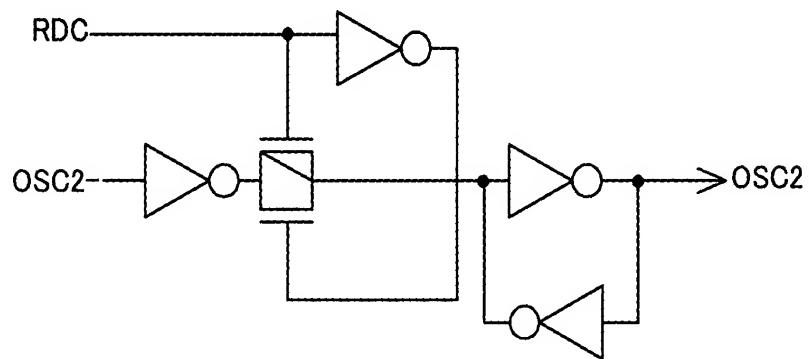
FIG. 17

OPERATIONAL WAVEFORM OF SECOND EXAMPLE
DIRECTED TO FOURTH EMBODIMENT
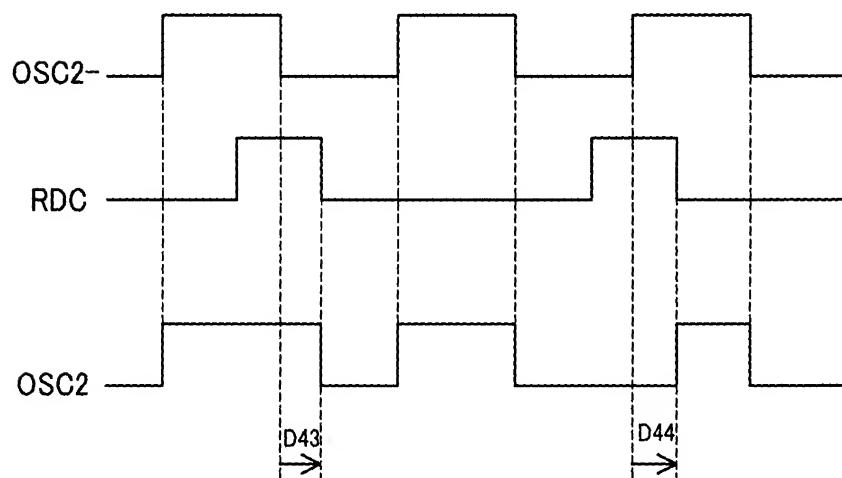
FIG. 18

CIRCUIT DIAGRAM OF THIRD SPECIFIC EXAMPLE DIRECTED
TO FOURTH EMBODIMENT
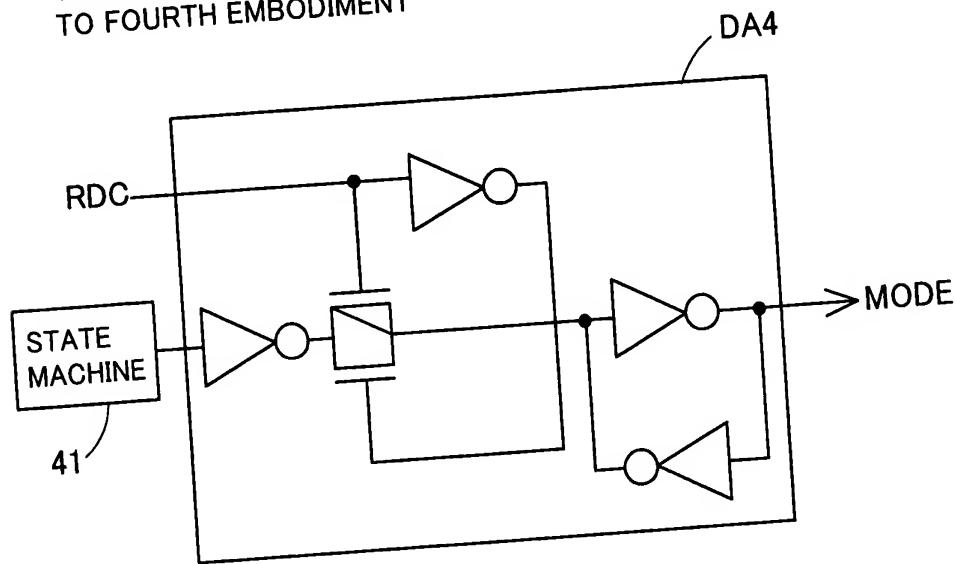
FIG. 19

STATE MACHINE IN SEMICONDUCTOR MEMORY DIRECTED
TO FIFTH EMBODIMENT

Title CONTROL METHOD OF
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

17
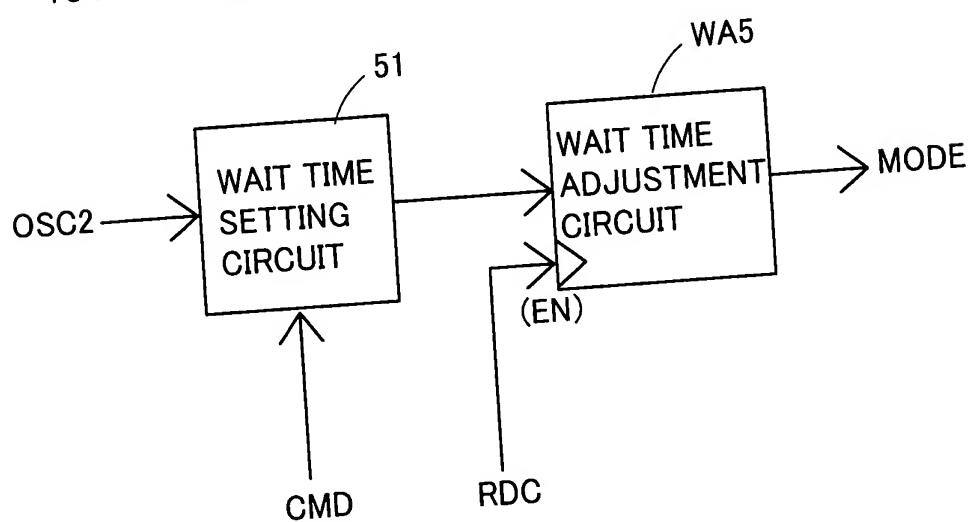
FIG. 20 PRIOR ART

CIRCUIT BLOCK DIAGRAM OF CONVENTIONAL SEMICONDUCTOR MEMORY

Title. CONTROL METHOD OF
SEMICONDUCTOR MEMORY DEVICE AND
SEMICONDUCTOR MEMORY DEVICE
Inventor: Kenta KATO
Application No. Unknown
Docket No. 024016-00066

18
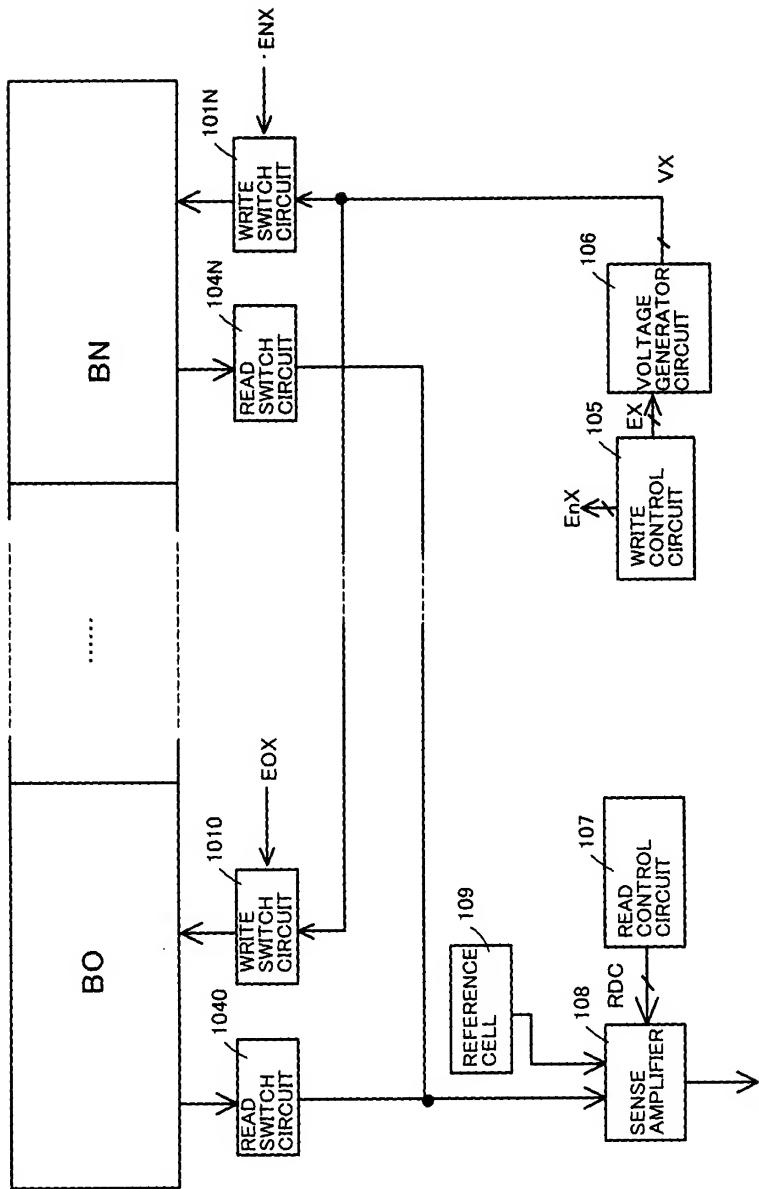
FIG. 21(A)

OPERATIONAL WAVEFORM OF RESPECTIVE FUNCTION MODES
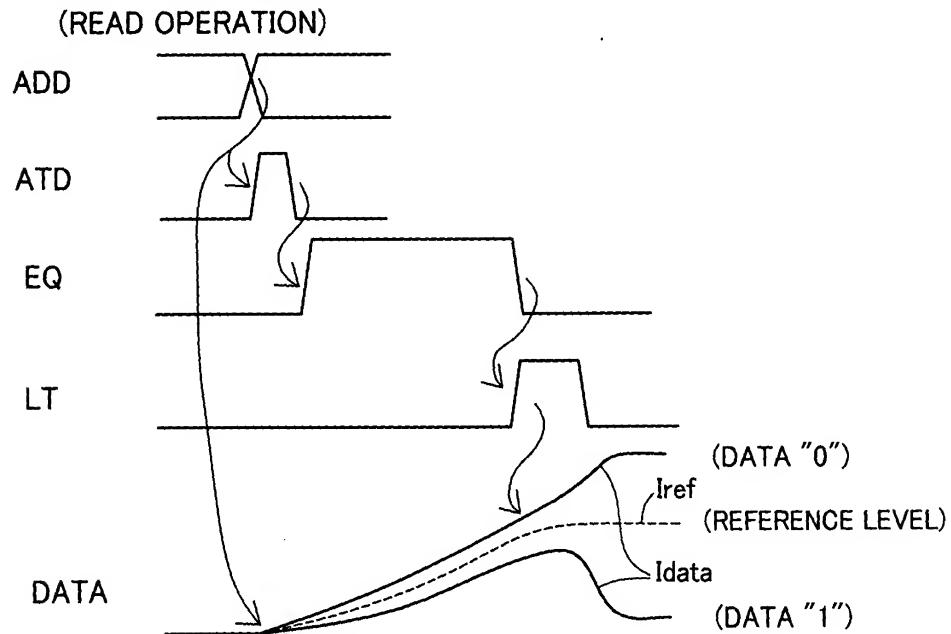
(READ OPERATION)

FIG. 21(B)

(PGM OPERATION)

FIG. 21(C)

(ER OPERATION)